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## Undiagnosed delirium is common and difficult to predict among hospitalised patients

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**Authors Declarative Title:** Undiagnosed delirium is common and difficult to predict amongst hospitalised patients.

**Commentary on:** Lange P, Lamanna M, Watson R, et al. Undiagnosed delirium is frequent and difficult to predict: Results from a prevalence survey of a tertiary hospital. *Journal of Clinical Nursing*, 2019; 28; 2537-2542.

## **Commentary**

### ***Implications for Practice & Research***

- Delirium is common but it is frequently undiagnosed within hospital settings internationally. Older age and dementia are the strongest predictive factors associated with undiagnosed delirium.
- Validated assessment of all hospitalised patients for delirium is recommended to improve delirium diagnosis amongst hospitalised patients.

### ***Context***

Previous research on delirium prevalence in hospital settings suggest it is a common condition which can affect around 20% of older people<sup>1</sup>. Although delirium is both preventable and treatable, healthcare professionals often lack the necessary knowledge and skills regarding delirium prevention, identification and management<sup>2</sup>. This has led to high rates of undiagnosed delirium, estimated to be as high as approximately 50% in the general hospital setting<sup>3</sup>. The aim of the study was to analyse the prevalence of undiagnosed delirium and the determinants of undiagnosed delirium of patients referred to a large tertiary hospital in Australia<sup>4</sup>.

### ***Methods***

The investigators prospectively reviewed the inpatient medical records to diagnose delirium. This hospital setting had 490 inpatient beds and 140 sub-acute beds. The point prevalence data collection took place over a four-month period, from February to May 2016, using the hospital admissions database. The investigators diagnosed delirium using a validated assessment tool<sup>5</sup>. The investigators applied exclusion criteria to palliative care, psychiatry, hospital at home and ventilated intensive care units because the use of the delirium assessment tool would not be valid in these settings. From a sample of 496 patients, 432 were available for analysis in this study. The investigators calculated the Charlson Comorbidity Index (CCI) for all participants. They also collected data about participant age, gender, ability to speak English, their admission unit, whether they had a diagnosis of dementia and if they died in hospital. These determinants were analysed using binomial logistic regression analysis. The study conformed to the STROBE guidelines for observational research.

## ***Findings***

The average age of participants was 63.9 years and around a third were female (34.7%). 12.5% of all inpatients and 22.7% of all in-patients aged over 65 had a diagnosis of delirium. Of these, almost a quarter (24.1%) had undiagnosed delirium. 12 out of the 13 people with undiagnosed delirium were over 65 years old and 3 out of 13 had a history of dementia. These characteristics were the only ones associated with undiagnosed delirium and both were significant ( $p < 0.01$ ).

## ***Commentary***

The results of this study are consistent with other studies related to the prevalence of undiagnosed delirium in hospital settings<sup>5</sup>. Of the data analysed, only older age and a history of living with a dementia helped to predict undiagnosed delirium. While other factors could be associated with undiagnosed delirium, for example pain or a past medical history of psychiatric disorder, this study was not able to examine these aspects as its methodology was based on a chart review, not an interview. A key strength of this study was its inclusion of all in-patients, not limited to age, across a variety of wards and units. The main implication for clinical practice is that undiagnosed delirium is still very common for people receiving care in a hospital setting. With reference to these findings, and concordance with previous studies, it is recommended that all in-patients are screened for delirium and the risk-factors associated with delirium.

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**Competing Interests:**

Nothing to declare.